

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 13 January 2005 (13.01.2005)

PCT

(10) International Publication Number WO 2005/003506 A2

E21B 17/02 (51) International Patent Classification7:

(21) International Application Number:

PCT/GB2004/002941

(22) International Filing Date: 5 July 2004 (05.07.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

0315666.8 4 July 2003 (04.07.2003) 0323146.1 3 October 2003 (03.10.2003) GB 0407600.6 2 April 2004 (02.04.2004) GB

(71) Applicant and

(72) Inventor: HEAD, Philip [GB/GB]; Gibb House, Kennel Ride, Ascot, Berks SL5 7NT (GB).

(74) Agent: HILLGATE PATENT SERVICES; 6 Aztec Row, Islington, London N1 0PW (GB).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD OF DEPLOYING AND POWERING AN ELECTRICALLY DRIVEN DEVICE IN A WELL

(57) Abstract: A system for installing a powered device in a downhole tube, comprising a power line disposed along a production tube which terminates in a first power connector, an orientation means disposed in the vicinity of the first power connector, and a powered device including a second power connector. The powered device is lowered down the production tube and oriented by the orientation means so that the first power connector means and second power connector means engage to connect the powered device to the power line. In another embodiment, the system comprises a power line disposed along a production tube, terminating in a first power connector, and a powered device including a second power connector, one or both of the connectors being radially displaced as the powered tool is lowered such that the connectors are aligned for engagement. Also shown in a method where an electrical power cable is connected to a first part of a wet mateable electrical power connector which is secured to a lower region of a production tubing; lowering the production tubing and the electrical power cable into the well; lowering through the production tubing an electrically driven downhole fluid transducer system which is equipped with a second part of a wet mateable electrical power connector; releasably latching the transducer system to the production tubing such that the two parts of the wet mateable power connector face each other, and lowering the electrical submersible fluid transducer system.